

THE WILSON BULLETIN

A QUARTERLY MAGAZINE OF ORNITHOLOGY

Published by the Wilson Ornithological Club

Vol. XLI (Old Series) No. 1

March, 1929

Vol. XXXVI (New Series) Whole Number 146

IN THE HAUNTS OF THE WOOD IBIS

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*Illustrated with Photographs by the Author and Frontispiece by
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Southern Florida offers perhaps the nearest approach to a bird-lover's paradise to be found anywhere within the boundaries of the continental United States. The extreme end of the peninsula is quite tropical in its faunal and floral affinities, and here one may find many organisms unknown elsewhere in the country. I had read, of course, of the tropical nature of the region, and once, years ago, had even passed by train over the Florida Keys from Key West northward; yet I was entirely unprepared, when a recent field trip for the Cleveland Museum of Natural History took me into the Cape Sable country, to find jungles there that might well have been mislaid by Brazil. Mangroves, that in other places scarcely attain the dignity of trees, here grow to a height of more than sixty feet and form solid forests miles in extent, while the strangling fig and gumbo-limbo abound, and even real mahogany is not rare. Surely one might expect ornithological novelties too. Therefore it was no great surprise to learn that on a small lake a few miles back from the coast a colony of Wood Ibis was nesting.

Until recently the traveler bound for Cape Sable had no choice of means of transportation, at least for the last part of his journey. Progress across country through the Everglades was practically impossible no matter what equipment might be employed, and only a boat of lightest draft was capable of negotiating the vast expanse of mud and shallow water, known as Florida Bay, which guards all seaward approaches to the Cape. Even with proper boats this voyage was not an easy one. Scott journeyed hither many years ago, to be followed in time by Bent and Chapman—pilgrims to an ornithological Mecca—and each has digressed in his account of the bird wonders he beheld to speak of the difficulties of navigation in these waters. Now, thanks to the misguided activities of civilization, a drainage canal has been dug from the western boundary of the Royal Palm State Park southwest-

ward to the coast, and on the mud and rock thrown out during its excavation an automobile road called the Ingraham Highway has been constructed to the little fishing village of Flamingo, just nine miles east of East Cape Sable.

Although we had barely established ourselves in the comfortable lodge at the Royal Palm State Park, and were in no wise prepared for camping out, when information of "the great ibis bird" reached us the decision to visit the rookery was prompt. Through the kind offices of the Park Warden and his family we were soon supplied with a huge box of quilts and other bedding, another of provisions, and a big sack of excelsior (in anticipation of the specimens we expected to stuff); and daybreak of January 25, 1924, found us in the warden's motor truck jolting along through the mists enshrouding the Ingraham Highway.

Leaving the Park, the road passes out at once into open country possessing all the charm that wide-arching skies can lend a landscape. On every side great expanses of grass, broken only by small hammocks of green trees and shrubs, sweep away to a remote horizon—save to the right where a long line of blue in the distance indicates the slash-pine forest growing on the oolite outcrop of Long Pine Key. But we sensed this through the experience of former excursions: on this morning we had covered many miles before the tardy sun finally swept away the mists and made it possible to dispense with the headlights.

By that time we seemed to have passed into a colder climate, a land of low hills, their slopes hoary with frost. But, strangely enough, the very tops of the hills were green. Then, as we drew nearer, the frost resolved itself into trees—stunted cypresses with naked limbs as yet untouched by spring—and we found that it was the peculiar quality of light reflected by the fretwork of pale trunks and branches that had created the illusion. The verdant hilltops were only the higher cores of evergreens about which the cypresses were clustered.

As we progressed, yet other changes came over the landscape. The hoary cypresses were left behind; hammocks became smaller and in them appeared a new character, the *Paurotis wrightii*, somewhat resembling the cabbage palm but more slender and graceful; and clumps of small mangroves became increasingly more evident. Coincidentally the ground-level became lower and the soil wetter. Scattered pools, coalescing, assumed the proportions of small lakes, alluring to their shallow waters scores of feathered fisherfolk. At length the road and its mother the canal, turned due west and entered a veritable jungle of huge mangroves, buttonwoods, and other trees of tropical origin, upon whose branches flourish thousands of bromeliads and orchids.



SLASH-PINE FOREST

An open growth of warm-tinted boles covering Long Pine Key, an oolite outcrop in the Everglades. Saw palmetto is practically the only undergrowth. The rock underfoot—there is no soil—is jagged, and cruel in the extreme.



TROPICAL EPIPHYTES

Bromeliads and orchids burden the hammock trees of southern Florida. The live oak here shown supports a host of air pines.

Here one unconsciously listens for the chatter of monkeys or the screams of parrots, or casts a wary eye into the deep shadows of undergrowth that might well conceal a jaguar. But the truck bumps on without incident. Then a final turn down an outlet canal, and we passed out on the open flat of the Cape Sable prairies to behold before us the hamlet of Flamingo. A mere glance at its half dozen nondescript houses perched on stilts along the shore, and the appropriateness of the name was at once apparent.

However, no favorite son returning from long exile could have hailed the sight more joyously! For full three weary, bone-racking hours we had been clinging to that plunging truck—had been jostled and bruised and mauled until the Everglades themselves would have seemed a haven of rest—while here a drowsy calm lay upon the land, a somnific warmth was in the air, and goldenrod blossoming on the shore gave the lie to January. Little wonder that the coconut palms fringing the beach held a languorous appeal or that the rippling waters of Florida Bay, flashing back the morning sun like a thousand small heliographs, should have awakened memories of a less strenuous life on more southern strands. But we had work to do and there was no time to dream. We had reached the limit of utility of land vehicles and yet many miles lay between us and the ibis colony.

At Flamingo lived a fisherman, known among his fellows as "K", who boasted the fastest launch on the Cape—a 12 m.p.h. boat. He was induced to act in the combined capacity of guide, boatman, and campman. Then ensued the bustle of stowing pots and pans, three five-gallon bottles of amber-colored cistern water, gasoline, and all the other impedimenta with which civilized man forever burdens himself; and, taking in tow a skiff, we put off toward the distant point of waving coconut fronds marking East Cape.

On the mud flats offshore stately Great White Herons stood like immaculate sculptures, while their blue-gray congener, the Ward's Heron, stalked with slow measured tread upon some luckless fishlet—an *hors d'oeuvre*, perhaps. Lines of Florida Cormorants in single file passed low over the water, the heavy birds maintaining an even height by steady, laborious flapping; pelicans, solemn and grotesque, rode the waves like yawls at anchor; and overhead Laughing Gulls and an occasional Royal Tern pirouetted in the sunlight. For more than an hour our boat plowed her nose along toward the palm-clad point, and between the heat, the steady whirl of the motor, and the glare from the water we were almost asleep when our pilot eased his craft into the mouth of a drainage canal and drew her up beside a bank of gray mud.



ABORIGINAL AMERICANS

Chief Big Shirt and his family at breakfast. The Seminoles rank, with the Wood Ibis, among the very "first families" of the Everglades.



AN EVERGLADE HAMMOCK

The Palm (*Paurotis wrightii*) seen in this picture is one of the most beautiful plants of southern Florida, and is not found elsewhere in the United States.

Here we paused to lunch, surrounded by black mangroves, saltwort, and myriads of fiddler crabs.

Upon resumption of the journey, a cormorant intent upon his own affairs in the canal was surprised by the onrush of our launch and foolishly tried to outswim it. It was not long though till he too realized that we had the fastest craft on the Cape, dived, and reappeared unharmed in our seething wake. Not so lucky, however, was a nice fat mullet similarly surprised. Once past our propeller it made a wild leap and landed in the skiff—and subsequently in the frying pan.

When a couple of miles due north and straight inland from the coast we turned sharply to the right into the continuation of the main canal down which we had followed in the motor truck, but here there was no sign of road, however bad. In fact the canal itself furnished the only evidence that human beings had ever penetrated to this wild spot, excepting one thing. That loomed before us, startlingly grotesque, suggesting a cross between one of the stilt-legged Flamingo houses and a Dutch windmill! It proved to be an old ditching machine that had been parked here at the scene of its last job, miles from anywhere, and we took possession of it for our camp. Then, as if pre-saging the success of our quest, a flock of Wood Ibises, alternately flapping and sailing, their long naked necks outstretched, and their black pinions and snowy bodies in sharp contrast against the afternoon sky, passed overhead.

However, the poetic thoughts thus stirred could not linger while we were confronted with the necessity of establishing ourselves in our new abode. Others, most likely coon hunters, had found the ditcher a handy stopping place. All their lives these people have looked upon water as merely a convenient medium upon which to travel, and brooms—why a broom in the hands of a coon hunter would be unthinkable! Anyway, the accumulated evidences of former tenants were great. To make matters worse many of the windows were closed with sheets of canvas. Choking with dust raised by our zealous broom, I tore these away, the while making sage remarks about the hopelessness of a people afraid of fresh air. (And, as usually happens to the newcomer who looks upon the native and all his works in the light of his own superior intelligence, I paid for my folly that very night, shivering in my drenched pajamas, frantically trying to tack back the canvas and shut out a cold driving rain from the north.

The next morning (January 26), a twenty-minute run eastward along the canal brought us opposite the south shore of our objective—Gator Lake. But for the glint of water through a gap in the protecting rim of trees we might easily have passed it by for just another of the



A HOMESTEAD WRESTED FROM THE JUNGLES

Note the barrel for catching rain water. The road builders who occupied the tent satisfied their liquid requirements by distilling water from the canal. No potable water is obtainable from wells.



FLAMINGO

A name suggested, perhaps, by the fact that the houses of this tiny fishing village are mounted on stilts. This is a precautionary measure rendered necessary by occasional terrific storms that drive the sea over vast areas of this low coast.

many patches of wooded swamp that at frequent intervals dot the Everglades. Through this gap we could see the mangroves, on what seemed the northern shore, thickly covered with white specks, and across the intervening three-quarters of a mile a strange din reached our ears. With quickening pulses we leaped ashore to moor the launch, and with eager hands dragged the skiff out of the canal, across a few yards of switch-grass turf, and shoved it out on the lake.

Gator Lake is almost circular and very shallow, and the underlying mud very deep. Every stroke of the oars stirred up a thick dark soup. A fringe of big mangroves (*Rhizophora mangle*) screens the lake from the open Everglades which surround it, and, as we hugged close to these while stealing cautiously toward the rookery, many birds were started from the roots and branches. Water-turkeys with a great commotion took wing or with but a single *plop* dived beneath the murky water; Little Green Herons with nervously twitching tails watched our approach for a moment and then darted away screaming into the jumble of mangrove roots; Little Blue Herons, in both blue and white garb, were surprised in the sheltered coves; and scores of Black-crowned Night Herons, still clothed in the streaked dress of adolescence, croaked hoarsely as they flopped out of the shadows. Even a couple of phlegmatic old Brown Pelicans reluctantly sought other perches. But of all the birds we disturbed, none protested so vehemently as the Louisiana Herons. Their explosive, shrieking squawks were well calculated to warn every potential specimen in the neighborhood that the collector was abroad, and we soon came to revile them heartily.

As we drew nearer the northern shore the white-spotted trees detached themselves from the shore line and became mangrove islets, while the spots among the glossy green foliage were resolved into scores upon scores of Wood Ibises (*Mycteria americana*)—the bird we most sought. The peculiar noise we had been hearing was the composite cry of several hundred nestlings, and it now passed from din to pandemonium.

Nearer and nearer crept our boat until the adult ibis watching in idle curiosity decided that all was not well and began to pitch from tree to tree. Though a huge, magnificent bird, the Wood Ibis, with its naked black head and neck and long decurved bill, is a grotesque object at best; when taking off it is superlatively so. As it springs from its perch the wings sweep forward, almost meeting in front, while the head and neck are bent sharply down toward the dangling legs. The resultant posture suggests a small boy who has suddenly realized the inconvenience of green apples!



THE GREAT GRANDDADDY OF ALL THE CRABS

Land crabs of this species, *Cardisoma guanhumi*, are very abundant over the southern Florida littoral and make themselves *persona non grata* with their human neighbors by inroads upon the tomato fields.



THE COAST AT FLAMINGO

This point is about nine miles east of East Cape Sable. The indigenous cabbage palm and the introduced coco palm are here seen together.

Pushing the skiff well up under the shelter of a large mangrove, we reverted to type for the time being and, like our primal ancestors, took to the branches. Cautiously we crept from limb to limb up to a point from which we could survey the rookery. What a sight to behold! And what a racket!

From this elevated perch could be seen scores of rather flimsy, shallow nests of twigs and vines, arranged in groups over the outer branches of the mangroves, and harboring young in every stage of development from unhatched embryos to nestlings with black pinfeathers in the wings. Many of the latter were standing up boldly in the nests but none had yet ventured out of them to explore the *flora incognita* beyond. The parents, all except the more timid which had departed entirely, had withdrawn to the tops of the highest mangroves and there anxiously awaited the next move on the part of the intruders.

If the adult Wood Ibis is grotesque the young is a caricature! But at least their necks are clothed, and they have good dispositions. When approached too closely they opened their ludicrous mouths and protested, or tried to walk on their wobbly legs, but none ever showed the pugnacity of young Ward's and Great White Herons, which in similar circumstances strike savagely with their formidable beaks.

The young alone were responsible for the outlandish uproar, for the adults are almost voiceless birds. Noise seemed to be both the vocation and avocation of these youngsters and their enthusiasm knew no bounds. Of a clutch of three eggs near-by, one was pipped, and although the chick within could get only the tip of its bill through the orifice, it joined most lustily with its sturdier neighbors in ringing the welkin. The combined efforts of these hundreds of nestlings is beyond the power of pen to describe. An acquaintance who had been having trouble with his radio, upon visiting such a rookery exclaimed, "Now I know where static comes from!"

Our reconnaissance showed the rookery to be divided into two unequal parts, a main division occupying most of a small aggregation of islets just off the north shore of the lake, and a lesser section that had overflowed to the nearest trees of a separate island immediately to the west. All of these islands were little more than clumps of mangroves growing out of the water. Soft muck was the only soil, but, when present at all, it supported a luxuriant growth of giant "sea ferns" (*Acrostichum aureum*) and vines. Gorgeous morning-glory blossoms fell like a benediction, over all. But this innocent vegetation only served to give one a false sense of security and lead to his complete undoing at the first step ashore, for only alligators and others who travel on their stomachs could find support on such footing.



OUR CAMP IN THE EVERGLADES

An old machine that was used to dig the lateral ditches into the drainage canals. The two rooms built over the machinery served admirably as a camp.



CABBAGE HAMMOCK

Looking westward from the top of our ditching machine camp. The hammock supplied us with fresh "cabbage," a really delicious vegetable obtained from the heart of the palm.

Upon careful survey, the main section of the rookery was found to be arranged in ten separate groups, the individual nests of which were placed on the peripheral branches of the mangroves at elevations varying from four or five feet above the water to twenty-five feet up in the tops of the highest trees. The largest group contained thirty-three nests (all in a single tree), the smallest, but four; all ten totaled 230!

Mr. Bent has described¹ the structures of a small rookery he examined years ago in the nearby Bear Lake as "large nests, about three feet in diameter, made of large sticks, very much like the nests of the larger herons." These Gator Lake nests were decidedly smaller and flimsier; certainly few attained a diameter of two feet and many were even smaller, and they were rather carelessly constructed of twigs and vines. Indeed, they failed utterly to accord with our preconceived ideas, derived from picture-books, as to how a stork's home should be built. For after all the Wood Ibis is not an ibis, but a stork. This fact is not generally recognized perhaps because our American stork takes so little interest in the census reports.

The usual number of young to the nest was three, though some held only one, while crowded into others there were as many as five. Often there was considerable discrepancy in the sizes of nestlings of the same brood, and in one nestful of four youngsters two were twice the size of their fellows. This indicates that the parents do not wait until all the eggs are laid before beginning to incubate them.

The 27th was cold and raw, with drizzling rain, and we shivered all day in our ditcher camp and thanked our patron saints that we had such a shelter. But the poor ibises were deserted by their saints. When we next saw the rookery we were shocked to find that scores of nestlings, which on former visits had greeted us with such an uproar, now lay cold and silent in their nests, victims of the elements. Other nests contained egg shells and portions of embryos which bore mute witness to the nefarious work of a skulking band of Florida Crows. Still other nests were entirely empty, cleaned out no doubt by the Turkey Vultures which were in constant attendance upon the rookery. The mortality in such a rookery is terrible, and one wonders how a species subject to such vicissitudes during its period of helplessness can possibly maintain its existence.

We had heard that Roseate Spoonbills—"pinks," the natives call them—roosted in the rookery with the Wood Ibis and as a specimen was a great desideratum of the Museum we determined to try for one. Accordingly, late one afternoon we set out to conceal ourselves at

¹Bent, A. C. *Nesting Habits of the Herodiones in Florida*. *Auk*, XXI, January, 1904, pp. 28-29.



THE EVERGLADES

View north from our camp. The numerous patches of black mangrove that dot the open stretches of switch grass appear in the distance to form a solid wall of woods.



THE GATOR ROOKERY

A general view of the red mangrove islets as seen from the east. The trees are dotted with the white forms of Wood Ibises, both adults and nestlings.

strategic points in the mangroves and see what strange bed-fellows the Wood Ibises might make. As we approached the rookery a single wary "pink" took flight and though we waited until almost night not another one was seen. However, herons and White Ibises came by scores to roost in the rookery. Little Blue Herons in both blue and white dress, and Louisiana Herons, came singly, by twos, by threes, and by fours—in groups of a single species, and both species together—in almost constant streams, flying with measured wing-beats low over the lake at sunset. White Ibises came in small flocks, flying higher. A few Snowy Herons and American Egrets also appeared. And if the rookery had been noisy with just the nestling Wood Ibises, now it was bedlam itself. Squawks, grunts, groans, whines—almost every conceivable sort of noise—issued from those dark mangroves in the gathering gloom. A romantic hour, an entrancing place! Then a Ward's Heron, another desideratum, suddenly winged into view, silhouetted for a moment against the sunset reflections, and the spell was broken. Motivated by the instinct of the collector, I automatically pressed the trigger—with appalling results. The awful report crashing upon that still atmosphere was terrifying and every one of the hundreds of herons among the mangroves sought, panic-stricken, to leave the rookery at the same instant. Wildest confusion reigned for a moment: then we picked up our poor victim and slipped away into the shadows.

That night aboard the ditcher we were troubled by mosquitoes for the first time, although we were encamped in a land famed far and wide for these friendly little insects. I remember yet the stories my brother, who claims to have cleared the site for Miami while serving in the Spanish-American War, used to tell about the sun-darkening clouds of mosquitoes that settled over his camp whenever the wind blew from the Everglades. Naturally our conversation turned upon mosquitoes, and "K" solemnly assured us that were it summer and we placed the lantern outside of the screens, the mosquitoes would put the light out in five minutes! He said that the natives simply do not go into the 'Glades during the summer months, and that even at Flamingo, on the coast, life is almost unbearable at times on account of the pests. It is not remarkable then that residents of southern Florida should be interested in the fact that small fish, especially top minnows, play an important role in mosquito control. But I was surprised to hear a drainage engineer demand the extinction of the whole heron tribe (which includes the Wood Ibis) because these birds feed upon small fish. One who is familiar with southern Florida must know that, in spite of the combined depredations of the entire heron



A GROUP OF SOLEMN YOUNGSTERS

Incipient flight feathers can be seen as jet black patches in their wings.



NOT MIRTH

But righteous indignation at our intrusion. Adult birds lose all vestige of down from the head and upper neck and become absolutely bald.

and ibis population, myriads of minnows and other small fish perish every year when the Everglade pools go dry. Next to mosquitoes, the most abundant animals in Florida are fish!

Twenty-five years ago Mr. Bent wrote (*op. cit.*), "The Wood Ibises are not in need of protection; they are extremely shy and wary and well able to take care of themselves;" and not long after, Dr. Chapman observed,² "The marshes and swamps, river, lake and sea shore, once animated by snowy plumaged herons, and ibises, and by Roseate Spoonbills, still exist and will long continue to exist as they were when the birds glorified them." But on the balmy January morning when we turned the prow of our launch homeward up the canal, giving the fright of his life to many a little Palm Warbler foraging in the switch grass, our hearts were sad. When we stopped at Gator Lake to pick up our skiff, and paused for a last look at the great white birds perched in their mangrove retreat, I could not but think how wretchedly wide of the mark are the statements of Messrs. Bent and Chapman today. Even at that moment the roadway being extended along the bank of the canal had almost reached the lake. Another season will bring with it an endless stream of automobiles, and, for the first time since its elevation above the waters of the Gulf, this portion of the Everglades will know the taste of dust and the smell of gasoline. After thirty years of continuous occupancy (so "K" informed us), the Wood Ibis must abandon its ancestral home and pass on to yet more remote regions—if there be such—for these strange and interesting birds, spared by the plume hunter can not face the encroachments of civilization.

It is the old, old story of human greed. While in the South alone numberless thousands of acres of good arable land lie idle, real estate speculators are draining the Everglades on the pretext of need for more farm lands. Is it not possible to protect a few of the remaining swamps from the over-zealous utilitarians and set them aside as refuges for such birds as ibis and herons and spoonbills that can not exist apart from these "waste places"? The Gator Lake rookery is inevitably doomed, yet there is still time, though barely enough, to save other rookeries if we act quickly. Let us for the moment forget to ask, "What good is it?", and, realizing our kinship with all animate nature, make an earnest effort to save from extinction this fellow organism.

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²Chapman, Frank M. *Camps and Cruises of an Ornithologist*. 1908. p. 82.